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ABSTRACT

The project examined the psychosocial functioning of preschool-aged siblings of handicapped children in comparison to a matched control group of siblings of non-handicapped children. The project then examined the psychosocial effects of increasing sibling understanding of and involvement with the handicapped child via participation in a 6-week sibling workshop program. Subjects were 24 children, aged 3 to 7, who had a sibling with a handicapping condition. Results based on parental questionnaires and pre- and post-interviews of the children indicated few statistically significant differences in psychosocial functioning. Having a handicapped sibling was not associated with differences between children on measures of empathy, verbalized affect toward parents or siblings, understanding of disability terms, or perceived self-competence and acceptance. Significant differences between the groups were uncovered only on measures of functioning obtained through maternal reports, which may have been due to mothers' perceptions being influenced by stress factors and not the siblings' actual behavior. Enrollment in the sibling workshop program failed to produce measurable changes in psychosocial functioning. Parents, however, were enthusiastic about their child's participation, expressing satisfaction that a special program was designed for their "neglected" non-handicapped child. An appendix contains explanations of the measures of videotaped behavior and a description of sibling workshop activities. (JDD)

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FINAL REPORT GRANT NO: G008300345

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BACKGROUND LITERATURE

As adults, many siblings report that the experience of being raised with a handicapped child enriched their lives, brought a sense of closeness to the family and gave them greater insight into people and their needs (Grossman, 1972; Powell & Ogle, 1985). Siblings of retarded children have been rated as being more responsible, mature, altruistic, and humanitarian than their peers (Grossman, 1972). In fact, siblings are increasingly being involved as adjunct therapists, attesting to their potential for impacting positively on the development of their handicapped brothers and sisters (Lobato & Tlaker, 1985; Miller & Cantwell, 1976; Schreibman, O'Neill, & Koegel, 1983).

On the other hand, numerous psychological problems have also been explored and described. These have included role and identity confusion (Farber, 1959; 1960; Grossman, 1972; SanMartino & Newman, 1974), increased home and care-taking responsibilities and decreased extra-familial social contacts (Schwirian, 1975), feelings of resentment and neglect (Grossman, 1972), and feelings of having to compensate for the limitations of the handicapped child (Cleveland & Miller, 1977; Grossman, 1972). Additionally, siblings of handicapped children have been rated by their teachers as having more problems in school and peer-relations (Gath, 1973; Tew & Laurence, 1973) than children who do not have disabled brothers and sisters. Other research suggests that, as a group, siblings of handicapped and chronically ill children do not differ from a control group in overall psychological adjustment, but that they may experience particular problems with aggression and delinquency as reported by mothers (Breslau, Weitzman, & Messenger, 1981).

One major obstacle to drawing firm conclusions on the question of whether or not siblings of handicapped children, as a group, truly are at risk for developing psychological problems is the difficulty in obtaining an appropriate control group of children whose families are matched to the experimental families along important family dimensions of size, socio-economic status, marital status, and sibling constellation (birth order, spacing, sex). Most researchers have controlled for some but not all of these variables. In fact, we know of no investigation in which the marital status of the experimental and control children's parents was considered. Since the birth of a handicapped child places additional stress on the marital relationship (Gallagher, Beckman, & Cross, 1983; Sabbeth & Leventhal, 1984), confounds associated with the adjustment problems of children from single v. two-parent families should be avoided through matching. Researchers also have dealt with the difficulty of obtaining an adequate control group by using the standardization sample of the measurement instruments they employ (Breslau et al., 1981; Breslau, 1982). By so doing researchers subsequently cannot analyze for interactions between experimental and control groups and the effects of SES, birth order, or spacing, etc.

In addition to the problems associated with the control group, projects in this area are typically based solely on maternal and/or teacher reports of sibling behavior (Lobato, 1983; Simeonsson & NcHale, 1981). The question of relative rate of psychological adjustment problems of siblings of handicapped v. nonhandicapped children has not yet been investigated using multiple measures of child functioning, especially with measures collected from siblings themselves.

Furthermore, emphasis has been placed on comparison studies of school-aged children and adolescents (Breslau et al., 1981; Breslau, 1982; Gath, 1973, 1974; Tew & Laurence, 1973). This is a period during which siblings often deal with issues associated with peer reactions to and acceptance of the handicapped child (Powell & Ogle, 1985). Though these are important issues, they probably are different from the issues siblings and parents face when their children are very young. At those early periods they are likely to be confronting for the first time the reality of the diagnosis of the child's disease or disability (Waisbren, 1980) and adjusting their family schedules to the introduction of unfamiliar personnel and services (Featherstone, 1983). To the best of our knowledge, the social and emotional functioning of preschool-aged siblings of handicapped children has not yet been reported in the literature, though it is reasonable to assume that some of the group differences noted during later childhood and adolescence would have their roots in this earlier period.

Though many recent advances have been made in services and training for parents of handicapped children, comparatively little research has been conducted to develop complimentary programs for nonhandicapped siblings within such families. Descriptions of interventions with siblings of handicapped children recently have begun to appear. School-aged siblings have been taught on an individual basis to work effectively as teachers of their younger handicapped brothers and sisters (Colletti & Harris, 1977; Lobato & Tlaker, Note 1; Miller and Cantwell, 1976; Schreibman, O'Neill, & Koegel, 1983). These interventions have been evaluated predominantly in terms of objective changes toward more desireable instructional behaviors of the siblings and/or greater skill acquisition of the handicapped children. Here, issues regarding the siblings' personal-social or emotional adjustment were not of primary importance, though one project provided some evidence that increased involvement of siblings as teachers was associated with increases in positive statements the siblings made about the handicapped child and their family lives (Schreibman et al., 1983). On the other hand, discussion groups for adolescent siblings have also been reported and these focus almost exclusively on enhancing the siblings' emotional adjustment by providing them with the opportunity to share their family experiences and to express their feelings to peers in similar situations (Kaplan, 1969; Kaplan & Fox, 1968; Schreiber & Feeley, 1965). Other group programs for older children have entailed a combination of peer discussion and behavioral training to teach skills in effective behavior management and instruction (Weinrott, 1974). The latter programs appear to benefit both the siblings and the handicapped children, but their effects have been reported only anecdotally.

Reports of discussion programs (Kaplan, 1969; Kaplan & Fox, 1968; Schreiber & Feeley, 1965), autobiographical statements (Hayden, 1974; Klein, 1972; Sullivan, 1979), and protocols of sibling interview studies (Caldwell & Guze, 1960; Cleveland & Miller, 1977; Graliker, Fischler, & Koch, 1962; Grossman, 1972) are important sources for identifying the major issues

that siblings confront and how they do so. These sources illustrate siblings' needs and desires for factual information about handicaps, for training in behavior management, for open communication within the family, and for contact with other children in similar situations for discussion and emotional support.

Anyone familiar with support and training services for parents of handicapped children will recognize these needs as being almost identical with those compelling the development of such services for parents (Harris, 1983). Many parent services offer both information and didactic training in behavior management, as well as emotionally-supportive contact with other parents. The combined goal of these components is to enhance parents' personal and parental functioning while providing a consistent environment for the development and education of the handicapped child. These services are considered to be so fundamental that attempts are made to provide them as early in the handicapped child's life as possible. Though similar needs and potential benefits to the family and handicapped child would appear to result from providing educational and support activities for siblings, they remain comparatively neglected in the delivery of family services. When siblings finally are considered and involved, it does not appear to occur early in their or the handicapped children's lives, when initial attitudes and behaviors are developing. Rather, almost all services described in the literature have focused on school-aged and adolescent siblings, with very few exceptions. Those that have dealt with younger, preschool-aged siblings have involved only individual instruction for improving their teaching abilities (Bennett, 1973; Cash & Evans, 1975). While demonstrating that preschool siblings can function effectively as teachers, such programs have existed mainly for the benefit of the handicapped children and have not addressed the siblings' probable need for information and peer support.

Thus, the literature suggests that little is known about the psychosocial functioning of preschool-aged siblings of handicapped children. Even less is understood about their needs for education and peer support.

PROJECTIVE OBJECTIVES

1) The first goal of the present project was to examine the psychosocial functioning of preschool-aged siblings of handicapped children in comparison to a matched control group of siblings of nonhandicapped children. Measures of areas of potential psychological strength (e.g., empathy) as well as weakness (e.g., aggression), as suggested in previous research with older children and adolescents, were included for comparison. In order to examine the role of a young child's handicap in sibling functioning, subjects and their families were carefully matched on family size, socioeconomic status, and marital status of the parents as well as the sex, age and birth order of the children.

2) The second goal of the project was to examine the psychosocial effects of increasing sibling understanding of and involvement with the handicapped child via participation in the "Sibling Workshop Curriculum."

3) The third program objective was to compare the effects of the structured "Sibling Workshop Program" with a specialized recreational and social activity group in order to control for the effects of added adult attention and peer group contact associated with the Workshop curriculum.

4) The fourth goal of the program was to establish guidelines for parents and professionals regarding their treatment of siblings of handicapped children.

METHOD

Subjects

Characteristics of the subjects and their families are presented in Table 1. All of the subjects lived in rural and semi-rural areas of Vermont and northwestern Massachusetts.

The experimental group consisted of 24 children ages 3 to 7 years who had a brother or sister with a handicapping condition significant enough to qualify that child for early intervention and special education services. Families involved in the special education and early intervention programs were approached for inclusion in the experimental group only if the child displayed a major handicapping condition that was recognized as such by the parents and professionals from birth or shortly thereafter. Families of children who exhibited more isolaged and/or mild skill deficits (e.g., language delay) were excluded. The handicapping conditions of the children included spina bifida (n=2), cerebral palsy (n=7), Down syndrome (n=3), profound hearing loss (n=1), blindness (n=1), William syndrome (n=1), non-specific global development delay (n=5), and multiple disabilities due to severe head injury (n=1), congenital hydrocephalus (n=1) and unknown etiology (n=2). Only two of the experimental families asked to participate in the project declined to do so - one because the nonhandicapped child did not want to participate and the other because the family planned on relocating midway through the proposed project period. Overall, the families were enthusiastic in their willingness to participate in the project, indicating that they were concerned for how their able-bodied children were adjusting to the other child's handicap and the extra parental attention required.

Based on compatability of family schedules and practical geographic considerations, the experimental subjects were assigned to one of 3 conditions for purposes of evaluating the effects of the Sibling Workshop Program. Subjects assigned to the Sibling Workshop group participated in the six-week program focusing on increasing knowledge of handicapping conditions and family issues. Subjects participating in the Activity Control group met as a group with the same workshop leader as above, though activities were of a generic arts and crafts nature. Disabilities and family issues were not raised by the leader (nor the children). Children assigned to the Waiting List Control group participated in the Sibling Workshop Curriculum after completion of the second post-test. Characteristics of experimental subjects and families according to their assigned condition appear in Table 2.

Examination of Table 2 indicates that the groups differed from one another on almost all demographic variables, with the economic and marital advantages in favor of children assigned to the Waiting List Control group.

Table 1

Subject Characteristics

	Experimental	Control
	n=24	n=22
Sibling Age	3 - 7 years	3 - 6.9 years
Male	4.86 years	4.57 years
Female	4.90 years	4.87 years
Sibling Birth Order		
1st Born Male	n=11	n=11
1st Born Female	n= 8	n= 6
2nd Born Male	n= 3	n= 3
2nd Born Female	n=2	n=2
Sibling I.Q.		
Range	70-146	72-139
Mean	112	103
Handicapped Child/Control Age		
Range	1 - 11 years	1 - 9 years
Mean	3.58 years	3.64 years
Family Income		
Range	6000 - 70,000	9000 - 50,000
Mean	20,000	28,000
Family Constellation		
Single Parent	n=9	n=9
Two - Parent	n=15	n=13

Table 2

Experimental Subject Characteristics by Workshop Condition

	Sibling Curriculum (n=8)	Activity Control (n=8)	Waiting List Control (n=8)
Sibling Age			
Range	3 - 5 years	4 - 6 years	3 - 7 years
Mean	4.5 years	5.0 years	5.1 years
Sibling Birth Order			
1st Born Male	n=2	n=5	n=4
1st Born Female	n=3	n=3	n=1
2nd Born Male	n=2	n=0	n=1
2nd Born Female	n=1	n=0	n=2
Sibling I.Q.			
Range	74 - 130	70 - 112	80 - 146
Mean	99.75	99.0	110.29
Handicapped Child Age			
Range	1 - 7 years	2 - 4 years	1 - 11 years
Mean	3.4 years	3.1 years	4.3 years
Family Income			
Range	6000 - 50,000	6000 - 32,000	13,000 - 70,000
Mean	14,429	17,375	29,286
Family Constellation			
Single Parent	n=4	n=2	n=3
Two Parent	n=4	n=6	n=5

Given the low-population, rural, and mountainous nature of Vermont and Northern Massachusetts it was not possible to improve the match across the three groups.

The control group consisted of 22 children ages 3 to 6.9 years whose brother or sister was apparently healthy and developing normally. Neither child had ever been suspected of having a developmental disability. Families with nonhandicapped children were recruited from local day care centers, preschools, pediatric practices, and Head Start Programs. Based on a brief project description available at these sites, interested families returned a post card to the experimenters describing general family demographics. Families were then contacted for possible inclusion in the project if they matched the experimental group in terms of the number of children, relative birth order, sex, ages and age spacing (within 6 months) of the target sibling and handicapped child/nonhandicapped control, and marital status of the parents. Considerably more effort and time was spent attempting to recruit control families than experimental families. An appropriate match could not be found for two of the experimental families following 12 months of recruitment.

Assessment Procedures

Children were interviewed and evaluated in a private area of their own homes while their parent(s) completed questionnaires and were interviewed in a separate area of the home. With one exception, all assessments were completed within a two-hour home visit that occurred prior to the onset of the workshops, within two weeks of its termination (post-test 1) and five months following post-test 1 (post-test 2). Measures of behavior and their scoring are described below.

Estimated intellectual function. The Stanford-Binet Intelligence Scale (Form L-M) was administered to the subjects as a measure of the general level of cognitive function. An IQ was then computed in order to control for potential intellectual differences between the experimental and control groups that could confound any psychosocial differences.

Self-perception. The Pictorial Scale of Perceived Competence and Social Acceptance (Harter & Pike, 1983) served as one measure of self-perception. Scores on this instrument were summarized into the four subscales of cognitive competence, peer acceptance, physical competence, and maternal acceptance. Mean subscale scores could range from 1 to 4. Means on each subscale were computed for each group and sex.

The second measure of self-concept was derived by computing the percentage of positive, negative, and general self-referents subjects emitted during the Family Role Play Assessment (Lobato, 1981; 1985). The Family Role Play Assessment involves the use of human figure dolls and standardized verbal and nonverbal prompts to elicit children's verbalizations about themselves and other members of their families. Verbatim transcripts were mae from audiotapes of each role play assessment. Inter-rater agreement on statement-by-statement codings of the verbal content of 25% of the tapes ranged from 83.71 to 96.94% (mean 91.49%). Total frequencies of occurence of positive, negative, and general self-referents were calculated and divided by the total frequency of self-reference statements. Experimental and

control group means for these three dependent measures were then calculated.

Empathy/Interpersonal awareness. Barke's (1971) scale for measuring empathy and interpersonal awareness was administered. This procedure requires the child to label the emotion of a child depicted and described in an affect-laden context. Percent "accurate" perception of the suggested emotional response in 21 pictures was calculated for individual subjects and averaged by group and sex.

Verbalized affect toward family. Percent positive, negative, and general statements made about brothers or sisters and parent(s) during the Family Role Play Assessment were computed in identical fashion to calculations on self-referents. Statement-by-statement inter-rater agreement on 25% of the tapes ranged from 76.85 to 96.80% (mean=90.09%) for statements subjects made about their brothers or sisters. Agreement on statements about parents ranged from 92.32 to 94.67% (mean 92.89%) across 25% of the tapes.

Understanding of developmental disabilities. Using the Family Role Play Assessment (Lobato, 1981; 1985), subjects' definitions of disability terms ("mentally retarded," "deaf," "blind," "handicapped") were elicited and coded as accurate, inaccurate, or partially accurate. Inter-rater agreement on 25% of the tapes ranged from 68.15% to 100% (mean=83.41%). An average percent accurate across the different terms was then calculated by group and sex.

Behavioral functioning. The Child Behavior Checklist (Achenbach, 1981) was completed by mothers. Total T-scores for overall "Social Competence," "Internalizing," "Externalizing," and "Total Behavior Problem" dimensions were averaged by sex for both groups. Subscale raw scores were computed for each child and then averaged by sex for the experimental and control groups on those subscales shared by both sexes and all ages: Somatic, Depressed, Schizoid, Social Withdrawal, and Aggressive.

Home routines. A questionnaire based on Schwirian (1976) was completed by mothers regarding subjects' home routines in three areas: child-care responsibility, household tasks, and home privileges and restrictions. Total child-care scores could range from 0 to 25, with higher scores indicating frequent child care activities (assisting with dressing, bathing, feeding, entertaining, etc.). The household score could range from 0 to 45, with higher scores correlating with greater self-sufficiency in personal care and domestic chores. Scores for priveleges and restrictions ranged from 0 to 40, where higher scores indicated more restrictions and fewer privileges (e.g., set bedtime, controlled television viewing, etc.). Totals on the three subscales were then summed and averaged by group and sex.

Family and Sibling Interaction. Videotapes were taken of siblings interacting with one another with and without mothers present in the living rooms of their homes. Siblings were allowed to select 5 of their own toys or games to play with for 15 minutes. The television was turned off. Following this 15 minute period, mothers joined their children and were aksed to play together with them using the same toys.

The middle five minutes of sibling-sibling and siblings-mother tapes were analyzed by two independent observers who were not informed of the subjects' experimental condition. Using frequency and partial-interval recording techniques, behaviors of experimental control mothers towards their nonhandicapped and handicapped (or matched control) child and siblings towards their mothers and other siblings were analyzed. A list of recorded behaviors and their definitions appear in Appendix ..

Workshop Procedures

The "Sibling Workshop Curriculum" appears in appendix 1. This curriculum was followed for experimental subjects assigned to the Sibling Workshop and Waiting List Control conditions. In addition to snack and story time, subjects participating in the Activity Control Group completed the following projects and activities during their six week program: Mask making, finger painting, modeling with clay, poster-design and painting, construction with craft sticks, and visit to farm animal area of university.

DATA ANALYSIS AND RESULTS

Objective 1: Comparisons of siblings of handicapped and nonhandicapped children.

Results were analyzed via a series of 2 (experimental v. control group) X 2 (male v. female sibling) ANOVA's. Significant main and interaction effects were followed by simple-effects tests.

Measures derived through direct interaction between the research assistants and siblings (in contrast to maternal reports) yielded no statistically significant differences between groups of children based on whether or not they had a handicapped brother or sister. Table 3 depicts group means by sex on the measures of self-perception, empathy verbalizations regarding family members, and understanding of developmenal disabilities.

Self-perception. On the Pictorial Scale of Perceived Competence and Social Acceptance (Harter & Pike, 1983), all children showed a tendency to describe themselves as being very able and well-accepted by their mothers and peers. Subjects' self-reference statements during the Family Role Play Assessment reflected highest ratios of general verbalizations as compared to positive or negative self-statements. Under ten percent of subjects' self-referents were negative in content.

Empathy. There were no statistically significant differences between the experimental and control groups in their abilities to identify the emotions of the children represented in the assessment pictures. If anything there was a nonsignificant tendency for siblings of normally-developing children to have higher empathy scores than siblings of handicapped children.

Verbalizations about family. Children made relatively fewer negative comments about their families, although in both groups, children described their brothers and sisters more negatively than they did their parents, regardless of the brothers' or sisters' developmental status.

Table 3

Sibling Generated Data

	Experimental		Control	
	Brothers	Sisters	Brothers	Sisters
Self-Perception				
Cognitive Competence	3.57	3.60	3.62	3.44
Physical Competence	3.36	3.30	3.54	3.22
Peer Acceptance	2.86	3.30	3.15	3.11
Maternal Acceptance	2.86	3.10	3.31	3.11
Self-Referents: % Positive	43	37	29	38
% General	53	46	62	51
% Negative	3	8	9	11
Empathy/Interpersonal Awareness				
% Accurate	76	75	88	83
Verbalizations about Handicapped				
Child or Control: % Positive	30	20	16	24
% General	46	41	57	64
% Negative	17	19	25	12
Verbalizations about Other Family				
Members: % Positive	32	24	20	24
% General	60	64	69	66
% Negative	8	12	11	8
Understanding of DD: % Accurate	26	23	27	28

Definitions of developmental disabilities. Having a handicapped child in the family did not result in the nondisabled child knowing any more about handicapping conditions than other control subjects with presumably less experience with handicapped children. Additionally, most siblings of handicapped children could not accurately describe the disability of their own brother or sister.

Child Behavior Checklist. Mean subscale and domain scores on the Child Behavior Checklist are presented in Table 4 according to subject group and sex.

Mothers of handicapped children perceived the behavior of their normal sons as more depressed ($F<1$, $25>=10.12$, $p=.004$) and aggressive ($F<1$, $25>=5.02$, $p=.03$) than did mothers in the control group or mothers rating the sisters of handicapped children. Sisters of handicapped children were perceived by their mothers as being more aggressive ($F<1$, $16>=5.81$, $p=.03$) than sisters of normally developing children. The main effect of group ($F<1$, $44>=10.29$, $p=.003$) on problems related to aggression contributed to significantly higher rates of externalizing problems ($F<1$, $44>=7.79$, $p=.008$) for siblings of handicapped children as a whole. When compared to males in the control group, brothers of handicapped children, as a group, were reported as having higher rates of behavior problems in all subscale areas with the exception of somatic complaints, though only the differences on the depression and aggression subscales reached statistical significance. A main effect of sex ($F<1$, $44>=3.91$, $p=.05$) on the somatization subscale indicated that mothers were more likely to endorse problems related to the health and physical well-being of their daughters more than their sons. This was especially common in the reports on sisters of handicapped children. Further inspection of the subscale scores indicated that 64.29% (9 out of 14) of the experimental brothers and 28.57% (4 of 14) of the control brothers received one or more subscale ratings within the clinically significant level, or above the normative 96th percentile. Similarly, 60% (6 of 10) of the experimental sisters and 25% (2 of 8) of the control sisters received scores above the 98th percentile.

Home routines. Group means by sex are presented in TAble 5. Female siblings of handicapped children were reported as having the greatest degree of responsibility for child care and household tasks, though the difference between them and other experimental or control subjects was not statistically significant. A significant interaction effect was found on the composite score for "Priveleges and Restrictions" ($F<1$, $44>=10.41$, $p=.002$). Sisters of handicapped children and brothers of nonhandicapped children were reported as having fewer priveleges and more restrictions of their activities than either sisters of normal or brothers of handicapped children. Thus, it appears that parents may respond to the presence of a handicapped child by increasing the expectations and demands on daughters ($F<1$, $23>=5.10$, $p=.03$) while relaxing those placed on sons ($F<1$, $21>=5.79$, $p=.03$).

Family and Sibling Interaction. Data from the videotaped interactions continue to be analyzed at the time of this writing. Results of these analyses will be forwarded as soon as they are complete.

Table 4

Maternal Report: Child Behavior Checklist

	Experimental		Control	
	Brothers	Sisters	Brothers	Sisters
Social Withdrawal	3.00	2,90	2.46	3.00
Depression	9.29[a]	5.00	4.08	3.25
Somatic[b]	1.36	3.40	1.42	2.00
Schizoid	1.71	3.10	1.33	5.00
Aggression[c]	17.43	14.00	10.85	6.63
Internalizing T-Score	61.14	54.00	53.15	53.50
Externalizing T-Score[c]	61.36	59.70	54.15	49.75
Total Behavior Problems T-Score	60.43	60.00	55.23	53.63
Social Competence T-Score	50.45	55.54	59.09	56.87

a Significantly higher than all other subgroup means

b Significant main effect for sex

c Significant main effect for experimental group

Table 5

Maternal Report: Sibling Home Routines

	Experimental		Control	
	Brothers	Sisters	Brothers	Sisters
Child-Care Responsibilities	14.21	21.60	15.62	16.22
Household Tasks	17.86	23.50	22.00	18.11
Priveleges & Restrictions[a]	19.00	30.60	30.69	20.78

a Significant interaction effect

Objectives 2 and 3: Effects of the Sibling Workshop Curriculum.

Despite demographic differences between experimental subjects participating in the three workshop conditions (sibling curriculum v. activity control v. waiting list control), there were no statistically significant differences between the groups at pre-test on any of the measures of psychosocial functioning, as indicated by t-tests.

Effects of the Sibling Workshop Curriculum were analyzed via three ANOVA's. In the first comparison a 3 (workshop condition) x3 (pre v. post-test 1 v. post-test 2) between-groups ANOVA was employed for each separate psychosocial variable. A second within-groups ANOVA was also employed to examine changes across the three assessment times for subjects within each 9f the workshop conditions. Both analyses revealed no statistically significant differences across groups at either post-test or within groups across assessment times.

Because of this lack of effect of the sibling workshops when compared separately to the activity control and waiting list control, data for the control groups were combined into a series of 2 x 3 ANPVA's. Again, the ANOVA's indicated no significant changes in measures of psychosocial functioning associated with participation in the sibling workshops. This was true for measures generated by siblings themselves as well as by their mothers.

Objective 4: Sibling, Parent, and Professional Guidelines.

See Discussion Below.

Discussion

Results of the present project indicated few statistically significant differences in the psychosocial functioning of preschool-aged siblings of handicapped children. Having a handicapped brother or sister was not associated with differences between children on measures of empathy, verbalized affect toward parents or siblings, understanding of disability terms, or perceived self-competence and acceptance.

Significant differences between the groups were uncovered only on measures of functioning obtained through maternal report, i.e., on the Child Behavior Checklist and in-home priveleges and restrictions. There are many alternative hypotheses to explain these findings. Because mothers often are in a heightened state of stress and depression when there is a handicapped child in the family (Gallagher et al., 1983) they may be more likely to rate otherwise tolerable behaviors from their normal children as annoying or mischievious - thus producing inflated levels of perceived aggression for both brothers and sisters of handicapped children. On the depression subscale, mothers of handicapped children most often endorsed items such as "feels worthless and unloved," "moody," and "sad." Corroborating evidence from siblings themselves was not found. The discrepancy between mother and sibling generated data suggests that mothers' perceptions may be significantly influenced by stress factors and not the siblings' actual behavior. This hypothesis is supported by recent studies demonstrating that maternal depression is significantly associated with mothers' ratings of aggressive and delinquent behavior of her children on the Child Behavior Checklist (Friedlander, Weiss, & Traylor, 1986). Despite this confound, the role of parent expectations and perceptions in creating

self-fulfilling prophesies should not be underestimated when advising parents. However, it may also be consoling to many parents to know that their "normal" children do not appear overtly negatively affected at this early age, despite their parents' frequent concerns.

ABsence of significant differences on instruments to which only the siblings, as opposed to their mother . responded may reflect the lower sensitivity of standardized preschool assessments in general. Behavioral and naturalistic observations of experimental and control sibling and parent interactions would provide an appropriate alternative method that could circumvent the problems associated with standardized preschool assessments.

Finding more child care responsibilities among preschool sisters of handicapped children is not surprising. However, the reported higher rates of priveleges with few restrictions for brothers of handicapped children is interesting to consider in light of the data from the Child Behavior Checklist indicating highest levels of depression among brothers. It may be that sisters' more active and well-defined child-care and household roles in the family at this early age provide some form of psychological resistance to problems of depression. Based on the data regarding home routine, it appears that the brothers' lack of child-care and home responsibility may reflect poorly-delineated expectation and roles for them within the family. Though we speculate that these may be associated with the problems of depression during the preschool years, we do not yet know whether the boys' independence from responsibility for the home and handicapped child have advantages in the long run. Similarly, just because sisters tend to look better adjusted as preschoolers does not mean that home and child care responsibilities have positive side effects in the long run. As older adolescents and adults, sisters of handicapped children exhibit the highest rates of depression, role tension and anxiety (Breslau et al., 1981); Breslau, 1982; Powell & Ogle, 1985). Longitudinal follow up would help address this important developmental question.

Failure to produce measureable changes in psychosocial functioning via enrollemtn in the Sibling Workshop Program was surprising, given previous studies suggesting it can have positive impact on preschoolers' attitudes towards themselves and other family members (Lobato, 1981). In a prior preliminary evaluation of the sibling curriculum, the Family Role Play Assessment was administered repeatedly in a multiple-baseline-across-subjects-fashion. Changes in dependent measures were individually by subject as opposed to the group analyses conducted in the present project. In its original implementation four of six subjects showed positive gains while two subjects did not. Thus, the current group analyses may have masked smaller individual changes in behavior.

Despite the absence of measureable change in sibling behavior, parents still were quite enthusiastic about their child's participation. They expressed satisfaction that a special program was designed for their "neglected" non-handicapped child and simply appreciated the added fun and attention the child experienced. The latter was true of the parents of children who participated in the generic activity-control group, as well.

Future evaluations of sibling programs should incorporate measures of family functioning more specific to the sibling relationship as well as more systemmatic consumer-satisfaction data from parents and siblings.

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APPENDIX I

MEASURES OF VIDEOTAPED BEHAVIOR

Positive Recognition (PR) frequency

An experience in which one member of the dyad praises or recognizes the other member (either verbally or physically) after the second member engaged in an appropriate behavior. PR is behavior contingent, it must occur after one member of the dyad has done something appropriately for which s/he is being positively recognized. Record each time the behavior occurs during an interval; also record who engaged in the behavior.

Examples

Child builds a tower, sibling praises child
(Record: PR Sibling N/A)

Mother hugs sibling on shoulder after s/he dresses doll
(Record: PR Mom N/A this is also an expression of affection
also record: EA Mom N/A)

Not examples

Mother hugs inactive sibling
(This is expression of affection: Record: EA Mom N/A)

Sibling yells at mother for disrupting blocks
(This is Scolds/Reprimands: Record: SR Sibling N/A)

Expressions of Affection (EA) frequency

An experience in which one member of the dyad engages in either verbal or physical behavior which expresses affection to the other member. This need not be behavior contingent and is thus not always delivered as a means of praising or recognizing the behavior of the other member, although it can occur in this context as well. Record EA each time the behavior occurs in an interval; also record who engaged in the behavior.

Examples

Sibling kisses laughing mother
(Record: EA Sibling N/A)

Father tells child I love you.
(Record: EA Dad N/A)

Mom hugs child saying "good job" after child sings
(Record: EA Mom N/A This is also positive recognition
Record: PR Mom N/A)

Not examples

Child leans on mom for support, she stays for support
(This is physical contact: Record: PC Child +)

Dad taps child on shoulder after building a tower
(This is only positive recognition: Record: PR Dad N/A)

Caretaking Behavior (CB) frequency

An experience where one member of the dyad attempts to help or does something for the other member. This could be a self-care task (tying shoes), reaching for something, protecting the other member from something etc. Record each time the behavior occurs in an interval, also record who engaged in the behavior.

Examples

Mom stops sibling from going near hot stove
(Record: CB Mom N/A)

Sibling reaches for and obtains toy for child
(Record: CB Sibling N/A)

Not examples

Sibling reaches for toy and plays with it, while child draws
(This is parallel play: Record: PP N/A N/A)

Aggression (A) frequency

An experience in which one member of the dyad acts either verbally or physically aggressive with the other dyad member. This includes such things as hitting, kicking, grabbing objects away, or yelling at the other member of the dyad. Record each time this occurs during an interval; also record who engaged in the aggressive behavior.

Examples

Sibling yells at child for rolling on the floor
(Record: A Sibling N/A)
(This is also Scolds/Reprimands, Also record: S/R Sibling N/A)

Child grabs toy away from sibling
(Record: A Child N/A)

Not examples

Father tells sibling not to throw blocks
(This is Scolds/Reprimand: Record: S/R Dad N/A)

Sibling and child engage in rough and tubmle play
(This is social play: Record: SP Sibling +)

Scolds/Reprimands (S/R) frequency

An experience in which one member of the dyad scolds or reprimands the other for engaging in an unacceptable behavior. Like Positive Recognition (PR), this category is behavior contingent and thus occurs in response to the behavior of one dyad member. S/R will usually be verbal (e.g., "Don't do that"), but may be a physical/gestural behavior as well (e.g., shaking a finger at child who threw blocks etc.) Record S/R each time the behavior occurs in an interval, also record who engaged in the behavior.

Examples

Mom tells sibling not to throw blocks again
(Record: S/R Mom N/A)

Sibling shakes finger and says "No" to child breaking toys
(Record: S/R Sibling N/A)

Not examples

Sibling hits child playing nearby
(This is aggression, record: A Sibling N/A)

Mom asks child to pick up toys
(This is Commands/Directives: Record: C/D Mom N/A)

Commands/Directives (C/D) frequency

An experience in which one member of the dyad asks or tells the other to do something, but does not necessarily attempt to teach them a new task (this is PI). This category need not be behavior contingent (i.e., in response to the action of another). Record C/D each time it occurs in the interval; also record who engaged in the behavior.

Examples

Mom asks child to pick up the toys s/he has thrown
(Record: C/D Mom N/A This is also Scolds/Reprimand:
Also record: S/R Mom N/A)

Sibling points to truck thus asking mom to bring it to him/her
(Record: C/D Sibling N/A)

Not examples

Mom shows sibling how to build a tower, sibling does not listen
(This is Provides Instruction: Record: PI Mom -)

Parallel Play (PP) — partial interval

Any experience in which each member of the dyad is separately involved with their own play activities and uninvolved with each other. The two people must be involved in some play activity. Usually these separate play activities involve objects, but not necessarily. Verbal play (delivering playful speech to oneself) is an example of nonobject focused parallel play. For this behavior the initiator is not recorded as no interaction at all between the dyad is occuring. Instead, record N/A. The same occurs with successful/unsuccessful attempt.

Examples:

Sibling plays with her doll, while child stacks blocks
(Record: PP N/A N/A)

Mothers build with blocks, child reads
(Record: PP N/A N/A)

Not examples

Mother plays with cards, child comes over and helps
(This is object play: OP Child +)

Father plays with doll, sibling walks away
(This is recorded as no interaction: NI N/A N/A)

Successful/Unsuccessful (+ or -)
Attempt at Interaction — partial interval

For each of the interactive behaviors, you are also to record whether the initiator's attempt to interact with the other dyad member was successful (+) or unsuccessful (-). A definition of success depends on the behavior involved but basically a successful attempt would mean that the other member of the dyad (the target) attended or listened to the initiator and reciprocally engaged in the behavior, followed a request etc. This is to be recorded separately on the data sheet each time an interactive behavior (i.e., SP, OP, PC, and PI) is recorded.

Examples of Successful Attempts

Child tickles sibling, sibling laughs and tickles sibling
(Record: SP Child +)

Mom throws ball to child, child throws it back
(Record: OP Mom +)

Examples of Unsuccessful Attempts

Child tickles sibling, sibling walks away
(Record: SP Child -)

Mom throws ball to child, child plays with ball alone.
(Record: OP Mom -)

Social Play (SP) partial interval

An experience in which one or both members of the dyad attempt to or succeed in reciprocally engaging in a playful sequence of social behaviors without the use of any objects. This type of play is partner focused in its intent. It is an interactive behavior; record who initiated the behavior and whether it was successful or unsuccessful. Record once if it occurs at any time(s) in the interval.

Examples

Sibling tells a joke to mother who listens to it
(Record: SP Sibling +)

Child tells a joke to mother who does not listen
(Record: SP Child -)

Sibling and child engage in rough and tumble play
(tag, monkey, or other social games) Sibling initiated
(Record: SP Sibling +)

Not examples of SP

Child plays by running around, sibling watches child for whole interval
(This is no interaction: Record: NI N/A N/A)

Sibling plays with toy and child comes over and helps (this is object play: OP Child +)

Mother sings to self, sibling does somersault (this is parallel play: PP N/A N/A)

Object Play (OP) — partial interval

An experience in which one or both of the members of the dyad attempt to or succeed in reciprocally engaging in a playful sequence of social behaviors with the use of objects. This type of play is partner focused in its intent. It is an interactive behavior; record who initiated the behavior and whether initiation was successful (+) or not successful (-). Record once if it occurs at any time(s) in the interval.

Examples

Sibling asks child to play ball, they play catch
(Record: OP Sibling +)

Child brings book to mom, mom reads to child
(Record: OP Child +)

Not examples

Sibling tickles child, who tickles back
(This is social play: SP Sibling +)

Mother reads book, sibling plays with truck
(This is parallel play: PP N/A N/A)

Physical Contact (PC) — partial interval

An experience in which a member of the dyad attempts to or succeeds in making physical contact with the other person. This physical contact is not the goal of a playful interaction per se. It does not include social play behaviors such as rough and tumble play etc. that require physical contact. Physical contact is a more supportive behavior that is often found as part of or within another behavioral sequence. It is an interactive behavior; record who initiated it and whether this initiation was successful or unsuccessful. Record once if it occurs any time(s) in the interval.

Examples

Sibling is lifted and put into mother's lap when being read a book, sibling stays in mom's lap and listens.
(Record: PC Mom + : This is also Object Play - also record: OP Mom +)

Child leans on mother for support, mom walks away
(Record: PC Child -)

Not examples

Sibling tickles mother who laughs
(This is social play: record SP Sibling +)

Mother hugs and kisses child
(This is expression of affection: Record: EA Mom N/A)

Provides Instruction (PI) partial interval

An experience where one member of the dyad attempts to or succeeds in trying to teach or show the other how to do something. This does not include doing something for the other member (CB) or telling them to do something (CD) without also attempting to show them how to do it. Record PI if it occurs any time(s) during the interval; also record who initiated the interaction and whether it was successful (the other member listens and/or attempts the task) or unsuccessful (the other member does not attend to or follow instructions).

Examples

Fathers show child how to build with blocks, child builds
(Record: PI Dad +)

Sibling shows child how to roll on floor, child walks away
(Record: PI Sibling -)

Not examples

Mom tells child not to throw blocks
(This is Scolds/Reprimands: Record: S/R Mom N/A)

Sibling asks Mom to get the toys
(This is Commands/Directives: Record: C/D Sibling N/A)

Orienting Prompts (OP, parent tapes only) frequency

An experience where a parent/caregiver gestures to the child of the dyad in some way (either verbally or physically) to play/interact with, do something for the other child in the room. Record OP each time it occurs in an interval; also record who engaged in the behavior (mom or dad only).

Examples

Mom asks sibling to read to child
(Record: OP Mom N/A)

Dad points to child in an attempt to get sibling to roll ball to him/her
(Record: OP Dad N/A)

Not examples

Mom asks sibling to play ball with her, they play together
(This is social play: Record: SP Mom +)

Dad tells sibling not to hit child
(This is Scolds/Reprimands: Record: S/R Dad N/A)

Skip Interval (SKIP) — Whole interval

An experience in which an interval is unscoreable because of technical problems such as the video being out of focus, if the subject(s) disappear out of view and don't come back during that interval. This must occur throughout the entire interval. No other behavior category should be recorded if SKIP is recorded.

Examples

Interval out of focus for full interval
(Record: SKIP N/A N/A)

Dyad not in camera range
(Record: SKIP N/A N/A)

Not examples

Part of interval out of focus, remaining children tickling each other
(This is Social Play: Record: SP Sibling +)

Sibling in view, play with cards; mom out of view getting another deck for sibling
(This is Caretaking Behavior: Record: CB Mom N/A)

APPENDIX II

SIBLING WORKSHOP ACTIVITIES

The attached pages contain a description of the activities and materials used in the implementation of the "Sibling Workshop Program." This manual can serve as a general guide for conducting future workshops.

Workshop 1

Goals. The goals of the first meeting were both general and specific. The general goals were to explain the purpose and activities of the workshops to the subjects, and to introduce the subjects to one another. The specific objectives for this meeting concern communication between children. In order for the group to function effectively in the future it was necessary that all children actively participate in the activities. For those children who initially appeared "comfortable" and shared their ideas with the teacher and the other children, the goal was to maintain this level of participation. For children who were initially quiet or who tried to stay on the periphery of group activities, the goals were to increase the frequency and duration of their responses and questions to other children within the group.

Introduction of goals, rules, activities. The experimenter and the children assumed a circle, sitting on the rug in an area associated with discussions. Using colored paper and markers, the teacher helped the children write as much of their names as they could. They taped these on their shirts and went around the room until each child could say the name of all people in the room. Then, the teacher described the goals of the workshops according to the following list:

1. To have fun (point out the materials and games in the playroom).
2. Meet with other kids whose brothers or sisters sometimes need special teachers and special attention. (Specifics were not yet discussed.)
3. Learn about each other and ways to get along with famlies at home.

Before listing the rules for conduct during the groups the teacher asked the children who had been in school what types of things they can and cannot do while inside. The following rules were discussed:

1. No screaming or yelling--other people are working in other rooms.
2. No grabbing or hitting other people.
3. If anyone gets angry or wants to get something from someone they should ask.
4. Ask lots of questions.
5. Ask for toys from the shelves if you want them.
6. This is a special group where we will talk about special things that we think and feel and do. Some of these things you even may want to be secrets--just to talk about while we are here. That will be okay because I won't be telling your mommy or daddy everything you say and do. But you can tell them anything you want to. Everything we do here is special and can be a secret if you want it to be.

The teacher then described how each workshop was to be scheduled:

1. Each day we do some work that I (the teacher) plan.
2. Then once that is finished you can choose some things you'd like to do for awhile.
3. The we'll all have a snack.
4. When we're finished we will come back together again and I'll tell everybody how they did and everyone will get a special surprise. (Take out each child's tee shirt and describe how they get one letter each week, etc.)

Activities related to the curriculum goals were then introduced.

Curriculum Activities

1. Using puppets to increase conversation. The first goal was to get the children to talk with one another about themselves and their family members. The teacher provided feedback about how much each

subject spoke but not about the positive or negative content of the speech. The teacher began this process by putting on a puppet show about two characters, Freddy and Darla, who are attending a playgroup for the first time. Freddy is shy and anxious at first but gregarious, confident Darla coaches him into conversations with others, the subjects watching the show. Once Freddy had gone around the circle and learned each child's name he became curious about other things about them such as where they live and whom they live with. Darla demonstrated how to find out. The teacher then stopped and offered a selection of puppets to the subjects so that they could participate in the show and, as such, offer more information about themselves. The teacher first prompted the children to ask a questions she suggested (e.g., Where do you live?) and then went around to each chlid to elicit suggestions for more questions. Each of these questions was then asked by each of the other children.

2. Family drawings and discussions. Working at either a table or on the floor, the children were instructed to draw a picture of each member of their family. As everyone drew the teacher began asking questions and again encouraged questions between children. When the children described their siblings the teacher did not push for information regarding their handicaps. At the end of the discussion the teacher highlighted what similarities and differences existed between the children and their families.

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Workshop 2

Goals. The goals of the second workshop were to increase the frequency of discussion between children about developmental disabilities in general and about their handicapped siblings, in specific. The goal of the discussion about siblings was to have the children produce positive statements about them. The teacher began the discussion in the content of the concept of similarities and differences--between people.

Curriculum activities

1. Same and different. The teacher and children sat in a circle. The teacher drew a picture of a boy and girl with the same color hair and eyes and asked on subject "How is this person different from this one?" The teacher then asked another child how the chlidren were the same. Once one of the chlidren responded the teacher encouraged them to respond as a group, "They have the same color hair."

The teacher then showed a picture of a girl sitting in a typical chair and one girl sitting in a wheelchair. One-by-one the teacher coached each subject to identify how the girls were the same and then how the girls were different. The teacher then discussed why people might use wheelchairs. The children were prompted to name one positive thing about either girl.

2. Discussion of siblings as handicapped. The teacher began the discussion by stating that eveyrone had a brother or sister who has a special teacher who helped him or her learn something they had trouble learning, and that they were the same to the subjects in some ways and

different in other ways. The teacher asked for description of how they were different. With one group this introduction opened a full discussion between the children about the history and present of their siblings' disabilities and behavior. With the other group the children were extremely reticent. In this case the teacher returned to a more general discussion about different forms of disabilities.

3. Discussing positive aspects of siblings' behavior. The teacher and children moved to the easel. On the easel the teacher taped up one piece of paper for each subject. On a sample paper she drew one smiling face and one frowning face. She explained that they were to think real hard about something their brothers or sisters often did. They were then to decide if what they thought was good or bad and to draw a smiling or frowning face on a paper to indicate which. The teacher went around the circle one-by-one, looked at the face-symbol the subject had drawn and then asked the child to state his or her thought aloud. The other children were asked if they thought the statement represented something good or bad about the subject's sibling. On the easel the experimenter drew the face originally assigned by the subject and, next to it, the face agreed on by the others. If the subject produced a negative comment the experimenter prompted a more positive statement and immediately recorded this on the easel for public display. This procedure was repeated twice with each subject.

4. Group reading. After snack the group sat in a circle in the discussion area. The teacher read the book, Like Me, a rhyming verse about a child labeled "retarded." Throughout the reading the teacher

encouraged the children to point out how the handicapped children in the pictures were the same and different from themselves, and what things they were doing that were good.

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Workshop 3

Goals. the goals for the third workshop were to increase the subjects' identification and expression of positive emotions.

Curriculum activities

1. Identifying positives by looking and listening. The teacher sat with the children in a group. The teacher perched Freddy and Darla, the puppets, on her knee. The teacher manipulated the puppets to have sad-looking faces and then asked the children if Freddy and Darla heard good news or bad news. Were they happy or sad? She then manipulated more cheerful expressions--mouths agape and upturned, arms upraised--and repeated the questions. The subjects selected their own puppets and one-by-one demonstrated how their puppets look when they feel happy. The next activity was to demonstrate how we can listen to someone's voice to know if they're happy. The subjects were told to cover their eyes with their puppets and to decide if Freddy was happy or sad. Freddy laughed loudly, in an exaggerated manner, and the children responded. The teacher pointed out that another way to know how people feel is to listen. Children then took turns using their eyes to express something positive while all others closed their eyes and guessed what they had expressed.

2. Demonstrating praise with puppets. The teacher discussed how people like to hear laughter and smiles when they have done something good. The teacher used Freddy and Darla to demonstrate how to praise, asking the children to identify how it feels to be praised. The teacher solicited suggestions of nice things Freddy could do for Darla and took turns with each child's suggestion as Freddy did these kind acts while the other children suggested how Darla could respond most positively.

3. Demonstrating praise by role playing with dolls. A second activity was planned for practicing positive emotional expressions and giving praise. The children joined the teacher at the activity table and together built a town with miniature houses, shrubs, and people. Each child selected the house that they wanted to be his or her family's and the dolls that were to be the family members. The teaching assistant was told, in front of the subjects, to put a star next to each child's name to indicate the number of good things each child said about their family members and the number of good reactions they suggested for those behaviors. One by one the subjects showed each of their family members doing something positive. The other children decided if the subject had, indeed, described something good and decided whether (s)he deserved a star under her name. The subject then used his or her own doll figure to demonstrate how (s)he would react. Again, the other subjects decided if the reaction was a positive one deserving of a star. This process continued until all children had accumulated at least two stars for each family member, though in the present study the girls in group 1 accumulated more than six apiece.

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Workshop 4

Goals. The goals for the fourth workshop were to increase the subjects' identification of negative emotions, to increase the range of responses to potentially distressing situations related to disabilities, and to increase the constructive expression of negative emotions.

Curriculum activities

1. Identifying negative emotions by looking and listening. This procedure was similar to the one used to teach the children to identify positive emotions. The teacher sat with the children in a circle and demonstrated sad faces with the puppets. The children were given their own puppets and one-by-one demonstrated what (s)he looks like and sounds like when sad. The teacher then had Freddy and Darla alternate between pleasant and unpleasant expressions. Once the children could identify and discriminate positive and negative emotions on 90% of the examples they were ready for the next more involved activity.

2. Expressing negative emotions and offering solutions to family dilemmas. In order to work towards these goals, the teacher/experimenter selected six magazine photographs of children and wrote a story to accompany each. The stories depicted children in sad situations related to their interactions with their parents, siblings, and/or peers. The end of each story was left open so that the subjects could suggest things that the children in the stories could do to feel better and to express themselves most effectively. The stories were arranged in a

sequence of increasing complexity and increasing potential sadness. The stories are presented below, and the pictures are copied in Figure 1.

Story 1. The little boy is 7. He has a brother who is 2 and very healthy. This boy cleans his room before school every day. One day he comes home and goes to play in his room on his table and sees that his brother scratched it up with a pencil. His table is ruined for good. He doesn't want his Mom and Dad to be angry at him and think that he did it with his truck.

How does he feel? Why?

Mom and Dad come home and they go into his room and see his table.

What can he say so they don't get so angry?

What can he do?

Story 2. This little boy is 4. He has an older sister who is normal. It is his sister's birthday and this ice cream is for her party. The boy really wants some ice cream but his father says "no--that's not for you. It's just for your sister."

How does the boy feel? Why?

How does the boy feel about Dad? Why?

What can the boy say?

What can he do so that he might have some ice cream, too?

Story 3. This little girl is at a picnic with her Mom and with other children and babies. The family has a new baby the Mom is taking care of. The baby is handicapped. The baby is deaf and cannot hear. (What is the baby's handicap?) Mommy is taking care of the baby and playing with the baby.

The other children are going to go swimming and this little girl wants to go too. But she is supposed to go swimming with Mommy. She asks Mommy to take her swimming. Mommy says "no" because she has to care for the baby.

How does the girl feel? Why?

How does the mom feel? Why?

How does the baby feel? Why

What can the girl say to her Mom?

What could she do so she could go swimming?

Story 4. Here's another family. This girl is 6 years old and her brother is 3. The brother has brain damage. Every morning they wake up and her Mom goes right into the brother's room and hugs and kisses him. The girl watches becaues Mommy isn't hugging and kissing her.

How does she feel? Why?

How does she feel about Mom? Why?

How does she feel about brother? Why?

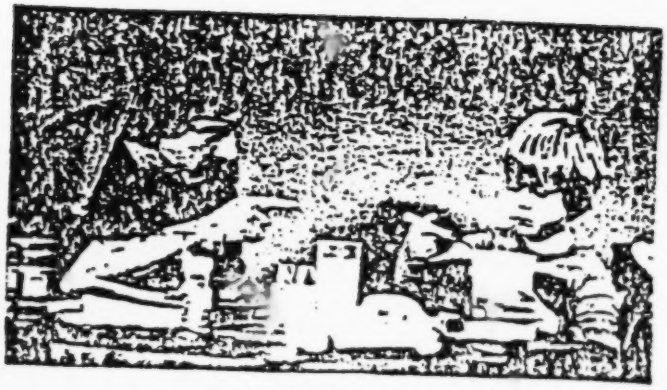
The little girl wants Mom to hug and kiss her too.

What can she do?

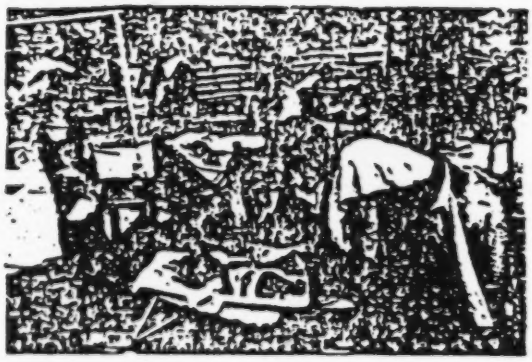
What can she say?

Story 5. Here are two more children. This one is Amanda--she's five and her brother is John--he's seven. They have a sister who is retarded. (What does that word mean?) They walk home from school and they want to show their Mom and Dad a new doll they found. They're all excited about the doll. But when they get home Mom and Dad are not there. Their grandmother is there instead and tells them that Mom and

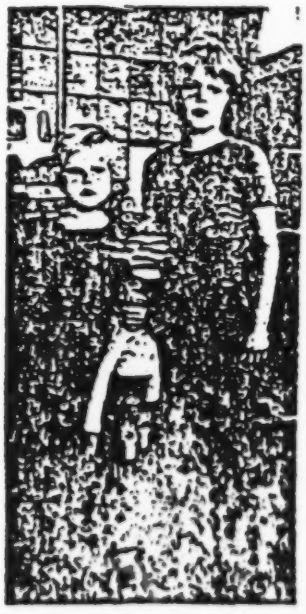
Story 1



Story 2

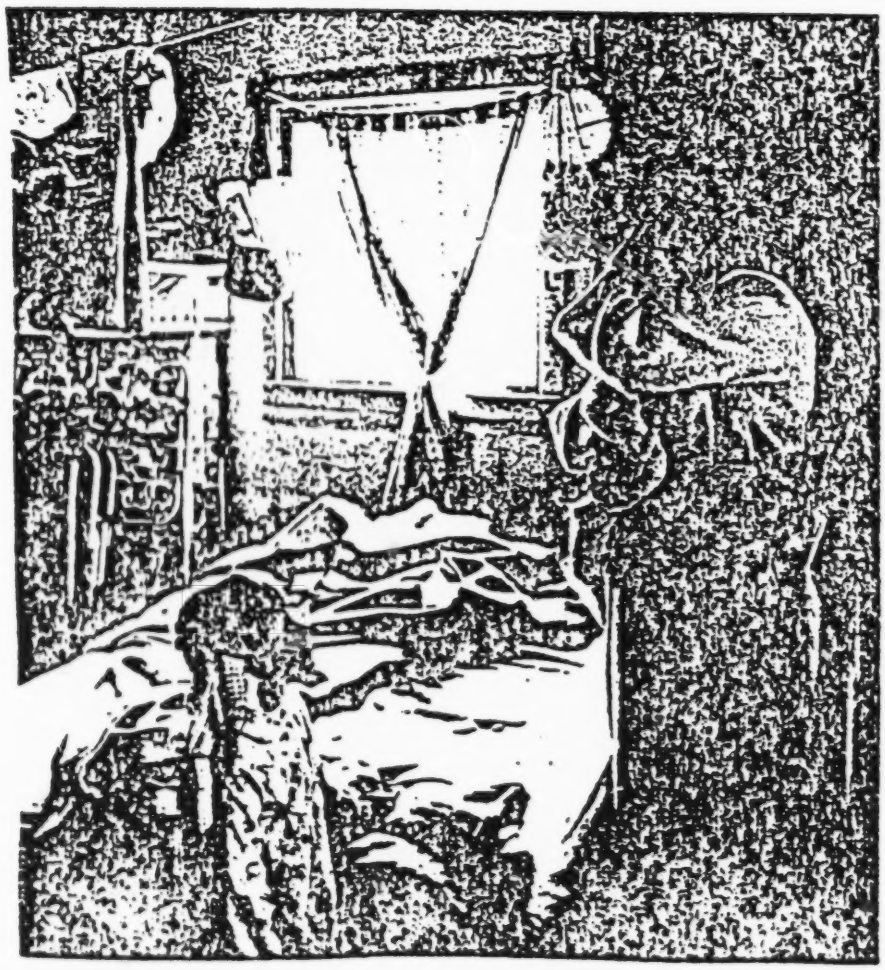


Story 3



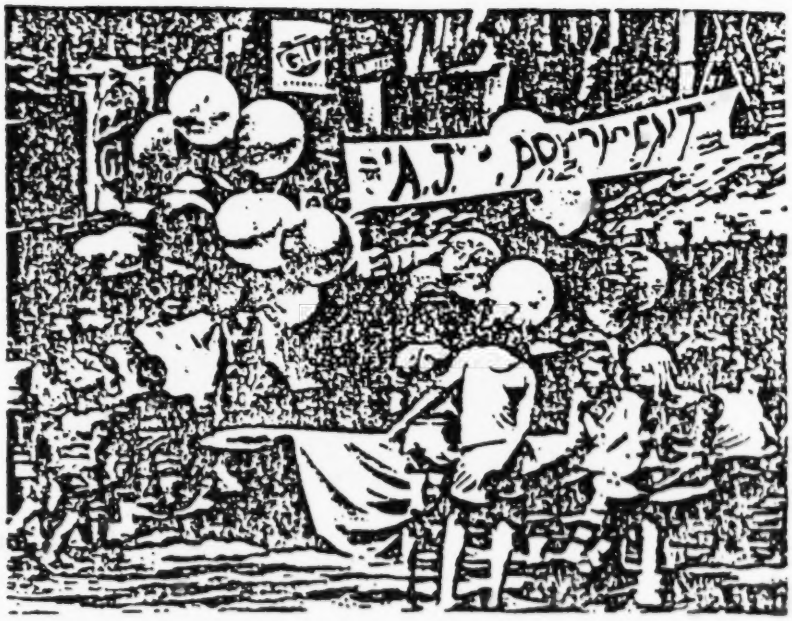
Story 5

Fig. 1 Magazine Photographs Accompanying Stories for the Fourth Workshop on Expressing Negative Emotions



Story 4

Fig. 1b



Story 6

Fig. 1c

Dad had to rush their sister to the hospital because she became sick. Mom and Dad won't be home for a couple of days.

How do the kids feel? Why?

How do the parents feel? Why?

What can they say to each other and Grandma?

What can they do when their sister comes home from the hospital?

Story 6. These kids are at a big party togehter. This girl (boy) has a sister who is handicapped. This girl is 8 years old and can't walk or talk yet. The sister is at the party, too. These boys come over and start to tese and make fun of the handicapped sister.

How does the girl feel? Why?

What can she do to make them stop teasing?

What can she SAY?

Why do the kids tease?

The teacher read each story to the children and then posed the accompanying questions. Only one subject responded to each question about identifying the depicted child's emotion (i.e., "How does the boy/girl feel?). When the other questions dealing with solutions were asked, all subjects were required to respond. One subject would offer their first suggestion and the teacher would coach the entire gorup to try the suggestion (e.g., "Ok, now let's try Henry's answer). Once three alternative solutions were offered by the group the teacher had the subjects practice each suggestion in unison (e.g., "Yes she could cry OR she could find something else to do OR she could tell Grandma she felt

sad.") The word "or" was accentuated to highlight that these were alternative responses.

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Workshop 5

Goals. The goals for the fifth workshop were to increase the subjects' identification and expression of the strengths in their own behavior.

Curriculum activities

1. Constructing positive self-reference posters. The teacher and subjects were seated around the activity table. The teacher took each child aside one-by-one while the other two children painted any picture or design of their choice. The teacher and single chlid spoke quietly in a corner of the room. The teacher showed the child a sample of simple drawings with simple positive self-statements written above each drawing. The teacher explained to the child that (s)he should pick out the saying and picture that (s)he would like to give to each of the other children, and that it should be something nice about each chlid. (These drawings appear in Figure 2.) Once the single child had chosen a drawing for his or her peers, (s)he was instructed to not tell them so that this could remain a surprise. Thsi procedure was repeated twice, once with each of the other subjects.

After all of the subjects had chosen drawings the teacher returned to the group at the table and let the subjects color and paint the drawings they had selected for their peers. The teacher emphasized the

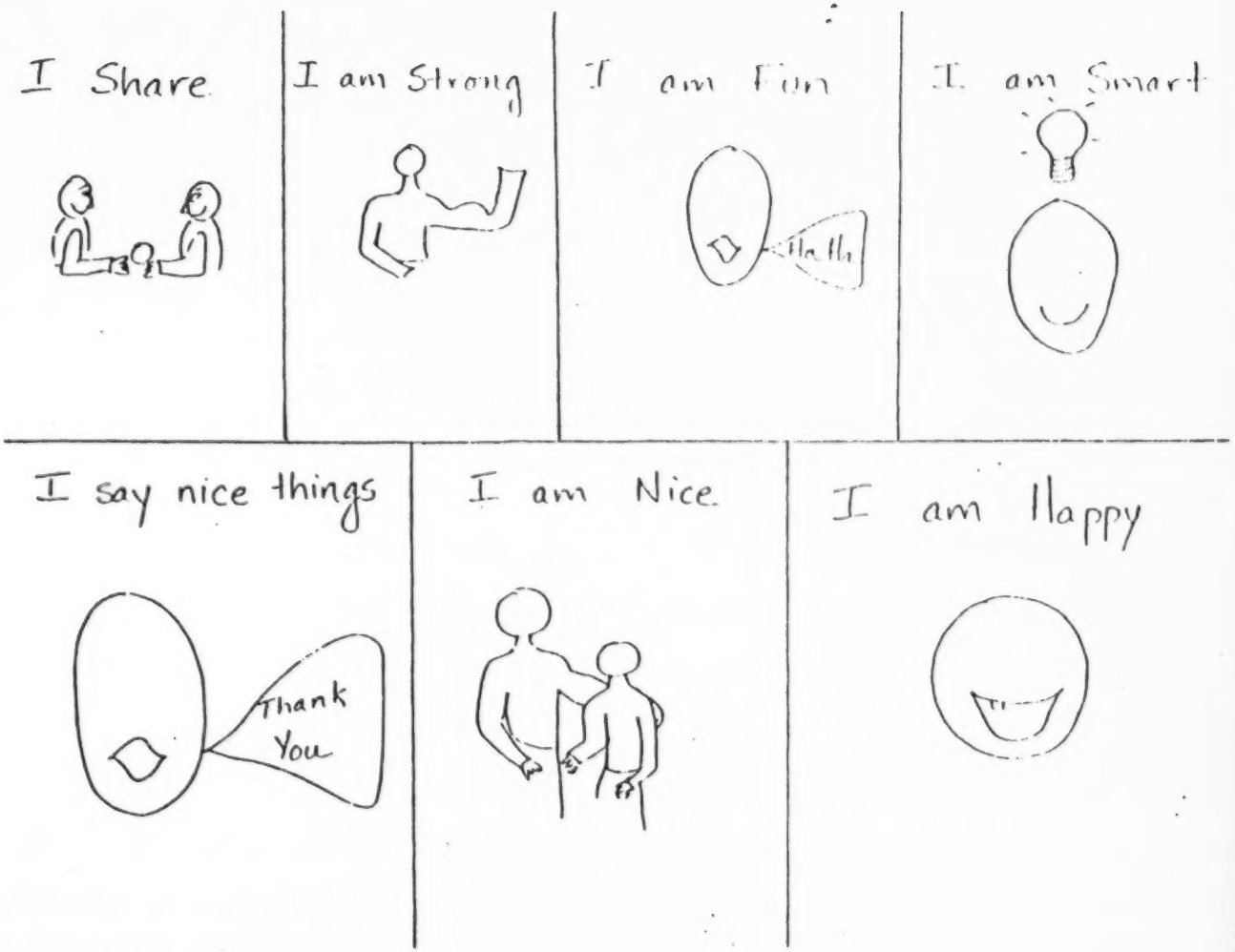

Fig. 2 Drawings for the Fifth Workshop on Positive Self-Reference

positive statements the children had chosen for one another but did not betray for whom each statement was intended. Once the paintings were finished, the group broke for an early free play and snack period.

After snack the teacher brought the children to a wall where she had horizontally draped a long roll of white paper to serve as a mural. With the children's help she marked the paper into three sections and assisted the children in writing their names on top of the section they chose to be their own. These sections were to be made into posters each child could take home, displaying positive things about him or herself.

The teacher encouraged the subjects to paint a self portrait on the poster. Then she sat with the sample of drawings the children had selected for one another and announced the nice things each child had said about the other. The child-recipient then glued one drawing at a time onto the poster, but only after repeating the appropriate positive self-statement. This procedure was repeated so that each subject said at least two positive things about him or herself.

The next, and final, step in constructing the posters was to have the subjects generate their own positive self-statements. The teacher drew an appropriate, colorful picture for each self-statement and then encouraged the child to decorate their posters in any way they pleased. They were allowed to take their posters home at the end of the workshop.

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Workshop 6

Goals. The goal of the final workshop was to review all of the concepts that had been discussed during the previous five workshops.

Curriculum activity

1. The review board game. In order to review the greatest number of curriculum goals with the least amount of boredom the experimenter designed a board game similar to the game bingo. Each child was given a playing board (see Figure 3) of 12 squares. Each square was numbered to represent a different curricum objective. Only the teacher/experimenter knew which number represented which objective. Small squares of numbered paper (1-12) were mixed in a hat. One-by-one, each subject reached into the hat and selected a number. The teacher then presented a task to that subject (e.g., "tell me what deaf means" or "say two good things about your brother"). The other two children decided whether or not the answer was appropriate. If they decided it was the subject covered the box with the corresponding number on his or her playing board. This procedure continued until each subject had answered each of the questions correctly. The first subject to cover his or her entire playing board selected a prize from a group of three small prizes (a can of playdough, a paint set, or a coloring book). The second child to finish chose from the two remaining toys, and the last child to complete the task was awarded whichever price was left.

The workshop program ended with the experimenter ironing the last of the subjects' letters onto their shirts. In this way each subject

brought two presents home on the last day--the tee shirt and the prize from the board game.

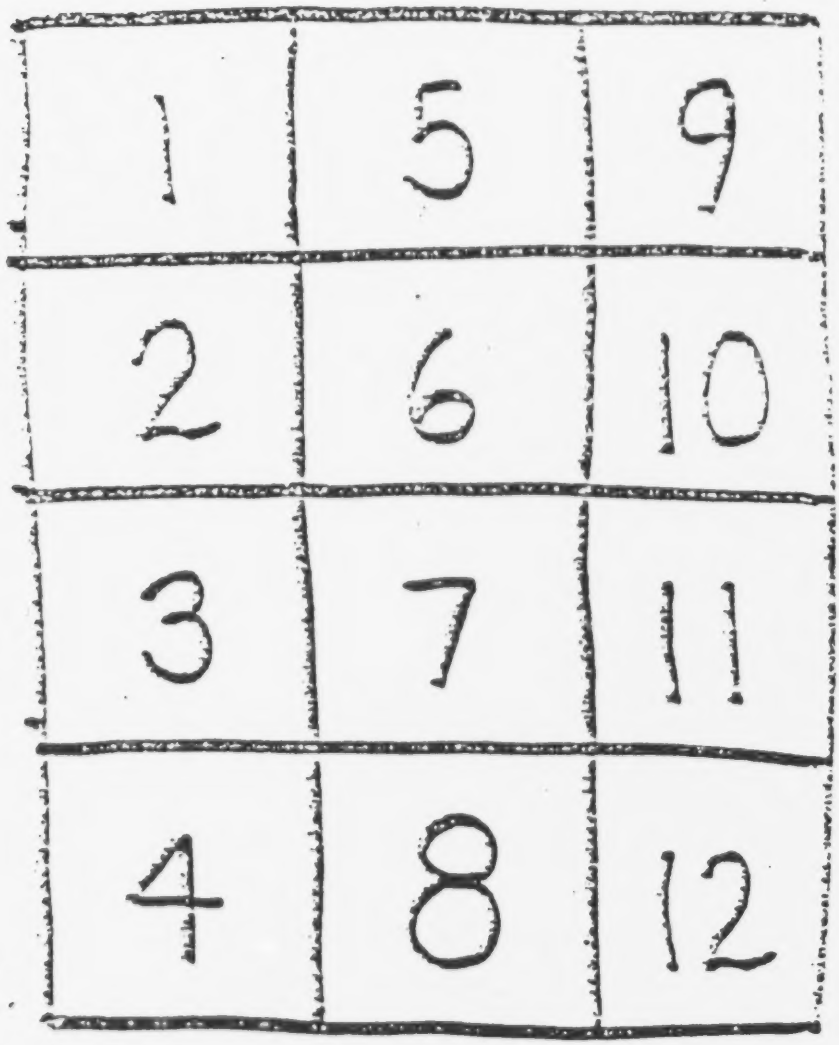

Fig. 3 . Game Board Used During the Final Workshop to Review All Concepts

ROLE PLAY ASSESSMENT: SAMPLE SCRIPTS AND STANDARD VERBAL PROMPTS

Script for Eliciting Child's Verbalizations Regarding Family Members

A. Interaction Set-Up

"Okay, now we're going to play a game where you can set up a house and people to be your family. I have all these great pieces of furniture and people in my bag that we will use. Would you help me set up the house? We'll make believe it's your house, ok?" (Child sets up the house.)

"What a nice job you did setting up the house. Now it's time to get your family so they can be in your house. I have dolls in here that we can make believe are your family, friends, and neighbors." We'll start with your family, who is in your family? (Child responds) We'll make believe that you're outside playing with a friend and other people are home. Who from your family should we put in the house first? (Child responds) (Examiner keeps dolls concealed until child finishes descriptions.)

B. Standard Verbal Prompts (SVP)

1. "Okay (family member's name), What can you tell me about (name) before I look for him/her in my toy bag? Tell my about (name)."
2. "What else can you tell me about (name) so I'll know him/her better?"
3. "What does (name) do at home?"
4. "Is s/he happy or sad? Why?"
5. "Is there anything else you can tell me?" (E then takes appropriate doll out of toy bag and repeats SVP 1-3 until child has described all family members except self.)

Script for Eliciting Child's Self-Reference Statements

A. Interaction Set-Up

"Okay now almost everybody in your family is home, but you are still outside playing with a friend. While you're outside a new neighbor comes over to meet your family. I'll be the new neighbor. You be Mom."

E(as neighbor): "Hi, I'm your new neighbor. I wanted to come over to meet you and your family. Is this your family? I thought you had another child, a girl/boy about _____ years old?"

B. Standard Verbal Prompts

6. "I have a kid the same age, maybe they can be friends. Tell me about (child's own name) and I'll tell my kid about him/her when I get home." (Child responds as Mom)
7. "What else can you tell me about (name) so I'll know him/her better?"
8. "What does (name) do at home?"
9. "Is s/he happy or sad? Why?"
10. "Is there anything else you can tell me?" (When child finishes, E makes believe it's time for the neighbor to leave and puts that doll away.)

Script for Eliciting Child's Definitions for Developmental Disabilities

A. Interaction Set-Up

"I think it's time now to make believe that you and your friend come home. Let's find a doll that can be you and one that is your friend. (E takes two child dolls out of the toy bag.) Okay, now I'll make believe that I'm (Friend's name) and you make believe this is you."

E(as child's friend): "That was fun playing outside. Let's go to your room to play and talk some more. (Dolls go to separate room of house.)

B. Standard Verbal Prompts

11. "Before we start playing games, I need to ask you some questions cause I think you might know the answers. Last night when I was with my mother she said that a new family moved into the neighborhood, that we have new neighbors. She also said that the new neighbors have a little girl/boy (sex of child's own sib) who is handicapped. I never heard that word before, could you tell me what it means to be handicapped?"
12. "Are handicapped children happy or sad? Why?"
13. "What can handicapped children do?"
14. "Is there anything else you can tell me so I can understand better?"
15. "What if this child was deaf; what would deaf mean?" (E repeats SVP 12-14, inserting "deaf" for "handicapped".)
16. "My mom also said the word 'blind' - what does blind mean?" (E repeats SVP 12-14)
17. "My mom used the word 'retarded'. What does that mean?" (E repeats SVP 12-14)

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